DOCUMENT RESUME

ED 373 375 CS 508 671

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TITLE Communication Apprehension in Japan: Grade School through Secondary School.
PUB DATE Jul 94
NOTE 43p.; Paper presented at the Annual Meeting of the International Communication Association (44th, Sydney, New South Wales, Australia, July 11-15, 1994).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Classroom Communication; *Communication Apprehension; Communication Research; Comparative Analysis; Cross Cultural Studies; *Elementary School Students; Elementary Secondary Education; *Foreign Countries; *Secondary School Students
IDENTIFIERS *Japan

ABSTRACT

A study examined levels of reported communication apprehension in Japanese elementary and secondary school students and to compare them to normative levels of apprehension of American children and adolescents. The Personal Report of Communication Fear (PRCF) was administered to 1,446 students from 6 elementary, junior, and high schools in Japan. Developers of the PRCF reported the instrument to be unidimensional but results indicated that three factors emerged: classroom communication fear, general communication fear, and stranger communication fear. The subscale scores were used in subsequent analyses. Major findings were: (1) communication apprehension levels increased fairly steadily from kindergarten through the senior year in high school, particularly for the classroom communication fear subscale of the PRCF; and (2) there was virtually no difference between Japanese and American students in grades K-12 in the PRCF using the normative means established by the developers of the PRCF. (Contains 37 references and 5 tables of data.) (Author/RS)

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Communication Apprehension in Japan: Grade School Through Secondary School

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Acknowledgements:
The authors would like to express their gratitude to Megumi Sakamoto for her work in translating the PRCF questionnaire and helping work through the cultural aspects of this study, and to Mariko Miyajima for her assistance in back translation and focus group work. Hiroyo Yoshimura of the Narashino Board of Education was invaluable in helping the authors collect data, and offered advice on Japanese culture that was of inestimable value.

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Abstract

The purposes of this study were to examine levels of reported communication apprehension in Japanese elementary and secondary school students and to compare them to normative levels of apprehension in American children and adolescents. The Personal Report of Communication Fear (McCroskey, Andersen, Richmond, & Wheeless, 1981) was administered to 1446 students from six elementary, junior, and high schools in Japan. McCroskey et al. (1981) reported the PRCF to be unidimensional but in the present study three factors emerged: classroom communication fear (CCF), general communication fear (GCF), and stranger communication fear (SCF). The subscale scores were used in subsequent analyses. The major findings were: (1) communication apprehension levels increase fairly steadily from kindergarten through the senior year in high school, particularly for the classroom communication fear (CCF) subscale of the PRCF; and (2) there was virtually no difference between Japanese and American students in grades K-12 on the PRCF using the normative means established by McCroskey and his colleagues (1981).

Communication Apprehension in Japan: Grade School Through Secondary School

There is an extensive body of research on communication apprehension and the related constructs of reticence, shyness, and unwillingness to communicate. The vast majority of this research has used samples of Americans, especially American college students, establishing that the problem of fear and anxiety about communicating is prevalent, affecting about 20% of the U.S. adult population according to Richmond and McCroskey (1985). Furthermore, this literature has identified an array of negative consequences of communication apprehension (see Daly & Stafford, 1984, for a comprehensive summary).

Perhaps it is because of the prevalence and substantial implications of the problem for Americans that researchers have been conducting similar research in other countries such as Sweden (Watson, Monroe, & Atterstrom, 1984, 1989), Puerto Rico (McCroskey, Fayer, & Richmond, 1985a), and Pacific Basin countries such as Australia, Korea, Micronesia, China, the Philippines, and Japan (see Klopf, 1984, for a summary of this research). Many of these studies are comparative, while others focus on communication apprehension among bi-dialectical speakers (Allen & Andriate, 1984; McCroskey et al., 1985a; Miura, 1985).

One of the countries that has been a site of communication apprehension research is Japan. There have been just two studies of this kind (Klopf & Cambra, 1979; McCroskey, Gudykunst, &

Nishida, 1985b), although Zimbardo (1977) has studied shyness among the Japanese. Curiosity about the Japanese seemed to peak in the 1980s undoubtedly because of the increasing number of business opportunities. It became important to learn about the communication styles of Japanese (Barnlund, 1989) in an effort to facilitate communication between the our two cultures. Successful business deals depended on it. Business is not the only area, however, that needs to be studied in order to understand Japanese communication patterns.

The study reported here examines communication apprehension among Japanese children and adolescents. All of the cross-cultural comparative studies, with the exception of the research done by Watson, Monroe, and Atterstrom (1984, 1989), have focused on young adults, specifically those attending colleges. Studies of shyness and apprehension in Japan have used college samples exclusively. The purpose of this research was to extend our understanding of communication apprehension among the Japanese by examining its prevalence among elementary, middle, and secondary school students.

REVIEW OF RELEVANT LITERATURE

This review examines research in three areas: (1) communication practices of the Japanese, (2) communication apprehension studies of the Japanese, (3) cross-cultural comparative studies of communication apprehension and related constructs, and (4) cross-cultural comparative studies of communication practices.

Communication Practices of the Japanese

Researchers have conducted a number of studies comparing Japanese and American communication practices (see Klopf, 1991, for a comprehensive summary). Reported below are seven major differences between the typical Japanese communicator and the typical American communicator. Each of these findings are based on the self-reports of Japanese and American college students:

(1) Japanese use fewer emotional appeals than Americans on the average when communicating (Frymier, Klopf, & Ishii, 1990).

(2) Japanese are less likely to approach arguments and are generally less argumentative than Americans (Prunty, Klopf, & Ishii, 1990).

(3) Japanese are less immediate (as demonstrated by behaviors such as touching, frequent eye contact, smiling, etc.) than Americans (Boyer, Thompson, Klopf, & Ishii, 1990).

(4) Japanese report more loneliness than Americans in romantic/sexual relations, family relationships, and community relationships (Pearl, Klopf, & Ishii, 1990).

(5) Japanese are less likely than Americans to dominate in a conversation. In general, Japanese are less inclined to talk than Americans (Geatz, Klopf, & Ishii, 1990).

(6) As compared to Americans, Japanese are less assertive and less responsive according to self-reports (Ishii, Thompson, & Klopf, 1990).

(7) Japanese and Americans report similar levels of verbal aggression when communicating (Harman, Klopf, & Ishii, 1990).

The results outlined above indicate that Japanese as compared to Americans typically are less verbally dynamic. Yoshida, Ishii, Okabe, Kume, and Hirai (1990) assert that Japanese are not as verbally dynamic as Americans because of cultural demands imposed by the structure of Japanese society, an idea put forth as early as 1973 by Doi, and also by Nakane (1973). Yoshida et al. (1990) emphasize the level of structure on interaction when they note:

> Language is used while always considering the other's position, age, and standing. The way in which you can call another is also fixed. [For example], you can use "Yamada-kun" [my buddy Yamada], "Shacho" [president], or "Sensei" [teacher or elder]. There are many uses for "Sensei," not only as a way to address educators and doctors, but also as a way to address members of the diet. So people who are good at speaking will lower themselves while elevating others (p.85).

Yoshida et al. (1990) explain some of the structure involved in Japanese communication behavior but fail to deal with the feelings behind the behaviors involved in speaking with a Yamada-kun, conferencing with a president, or talking with a teacher. Neustupny (1987) notes the lack of empirical research on the internal processes that guide Japanese communication behavior. He states:

> Observers of Japan have so often taken the country at its face value: what is appeared to be when the Japanese were seen communicating as what it actually was. The Japanese were emotionless because they appeared not to communicate emotions; they were excessively formal because they communicated politeness so strongly; they were cunning because they did not communicate refusal in the same way as we do. One did not ask whether they actually had emotions, whether they were actually formal, or whether they did or did not make it clear what they meant (p.197).

Neustupny makes a strong argument for further research on the internal factors present when communicating, such as communication fear, because researchers are likely to mistake cultural interaction rules for personality traits.

Goldman (1994) falls prey to the dilemma described by Neustupny (1987) by suggesting that Japanese negotiators chose to be quiet, rejecting outright the possibility that they might be apprehensive (p. 45). Apprehension, depending on the definition,

typically refers to a person's fear about communicating, "which is aroused internally" (McCroskey, 1984, p.33). Silence, on the other hand, is a behavior or a mode of communicating (Ishii & Bruneau, 1994) not an internal state. Behaviors, such as silence, may or may not correlate with internal states, because behavior is shaped by many factors including culture and self-monitoring (O'Keefe, 1990).

Theorizing about the cause of silence without empirical data about the internal state of the communicator increases the potential for erroneous conclusions. For example, Goldman (1994) *assumes*, perhaps incorrectly, that the reason for silence during negotiation is because Japanese lack "relationship bonds with gaijin (foreigners)" and Japanese are "unable to initiate ningensei (humanness)" (p. 45). Goldman's (1994) assumption is problematic because of a lack of empirical evidence linking internal and external states.

Communication Apprehension of the Japanese

Because of the modest number of researchers in the field of communication, research on the topic of the fear of communication in Japan comes mainly from the field of psychology (Kasahara, 1977; Kimura, 1988). One of the first studies of shyness in Japan was conducted by Inami and Kasahara in 1965 (cited in Kasahara, 1988). This unpublished study tested 2481 freshmen at Kyoto University on the UPI index. One of the questions was "Do you turn red easily?" Kasahara reported that approximately forty

percent of the respondents responded "at least once." (1988, p.55).

Kasahara later queried 500 students in the Liberal Arts, Medicine, and Engineering departments at Gunma University about fear of communication. He researched the conditions under which students at Gunma University reported fear of speaking (Kasahara, p.71) in the following contexts: (1) large groups (giving an introduction or stating your name), (2) small groups, (3) speaking to strangers or new acquaintances, (4) speaking with acquaintances, and (5) speaking with important persons or elders.

The results from this study suggest that the majority of college students (63%) fear speaking in groups. A minority of students feared speaking in the small group context (21.7%) or speaking with strangers (13.0%). Very few students reported fear when speaking with acquaintances (4.3%) or important persons/elders (2.2%).

Cross-Cultural Comparison Studies on Communication Apprehension

One of the earliest cross-cultural apprehension studies was done by Klopf and Cambra (1979; summarized in Klopf, 1984). The PRCA was administered to students from colleges in Australia, Korea, Japan, and the University of Hawaii. Their results indicated that Americans were significantly more apprehensive than Australians and Koreans. The Japanese sample had the largest percentage of high apprehensives. As Klopf (1984) states: "Klopf, Cambra, and Ishii (1983) reviewed 8 years of CA

reports involving approximately 4500 Japanese university students and business and professional persons. These people were compared to various American and other foreign populations, and the results always show the Japanese with a higher CA level" (p. 162).

Similar results were obtained by McCroskey and colleagues (1985b). They administered a short form of the PRCA to 209 Japanese students at Nihon University. Comparing the results to norms for samples of Americans, Puerto Ricans, and "Orientals", the researchers found that Japanese had significantly higher levels of CA than all of the other groups (McCroskey et al., 1985b).

When the related construct of shyness was the focus of research, the Japanese were also found to report the highest incidence of the problem. Zimbardo and his colleagues (1977) conducted cross-cultural research on shyness using samples of 18-21 year olds from Taiwan, Japan, Germany, India, Mexico, Israel, and others. Results showed the Japanese and Taiwanese reported the greatest incidence of shyness.

Justification for Research

Taken together, these studies show cross-cultural differences in levels of communication apprehension and shyness. Furthermore, these studies show that significant differences exist when examining the communication practices of Japanese and Americans. However, evidence has been advanced showing that both

Japanese and Americans experience the fear of communication. Of particular relevance to the present study is the consistent finding that Japanese college students report higher levels of shyness and apprehension than any other group. Further research concerning communication fear in Japan is justified for two reasons. First, all of the studies of Japanese communication apprehension have sampled from the population of college students. Researchers have found evidence suggesting that levels of CA increase or decrease with age (Watson, Monroe, & Atterstrom, 1984). Consequently to obtain a more complete picture of communication apprehension in Japan, it is vital to obtain samples of children and adolescents. Because normative levels of CA have been established for students in grade schools and high schools in the United States (McCroskey et al., 1981), it is possible to compare Japanese children with American children.

Second, Japanese college students represent a minority of the Japanese population. In the ninth grade students take high school entrance exams that determine their future--the level of high school which they will be allowed to attend and whether or not they will go on to study at a college or university.

Thus, samples of college students in Japan are not representative of the entire Japanese population. Instead, college students represent a somewhat elite segment of that population. Research is warranted, therefore, that samples from

a broader cross-section of the Japanese population. Based on the rationale provided above, the present study was undertaken to address the following research questions:

RQ1: Are there differences in levels of communication apprehension of Japanese students across grade levels?

RQ2: How do Japanese students in grades K-12 compare to American students of the same age in levels of communication apprehension?

METHOD

Subjects and Procedure

To study the communication apprehension levels of Japanese students, the following six municipal schools in Narashino, Japan were surveyed:

(1) Narashino High School

(2) Third Junior High School of Narashino

(3) Fourth Junior High School of Narashino

(4) Higashi Narashino Elementary School

(5) Akitsu Elementary School

(6) Suginoko Kindergarten

The total sample consisted of 1446 Japanese students from Narashino, Japan.[1]

All grades (i.e., kindergarten through twelfth grade) were surveyed for this study. The total sample consisted of 697 females (48 percent) and 749 males (52 percent). Sample sizes for each grade are listed in Table 1.

Insert Table 1 about here

Independent Variables

Three independent variables were used in this study. Subjects were identified with respect to: (1) sex (male, female), (2) grade (kindergarten through twelfth grade), (3) level (early elementary, late elementary, middle school, high school). The third variable of level was constructed to compare the results of this study with the results of a comparable study of American students (McCroskey et al., 1981). The variable of level was generated by combining grades into the following four categories: (1) kindergarten to third grade, (2) fourth grade to sixth grade, (3) seventh grade to ninth grade, and (4) tenth grade to twelfth grade.

Dependent Variable

Description of the PRCF. The Personal Report of Communication Fear (McCroskey, et al., 1981) was used to measure communication apprehension. The Personal Report of Communication Fear (PRCF) consists of 14 statements concerning a subject's evaluation of their feelings toward communicating. Subjects were asked to rate their level of agreement to each of the statements using a 5-point Likert-type scale. (see Table 2).

Insert Table 2 about here

The PRCF was considered most appropriate for this study because it was designed to measure communication apprehension levels of "all elementary and secondary students, regardless of age level" (McCroskey et al., 1981, p. 125). Other measures of communication apprehension such as the PRCA (McCroskey, 1978) and the MECA (Garrison & Garrison, 1977) were designed to measure students at specific educational levels, such as college or elementary. In addition, the PRCF was appropriate to measure Japanese communication fear because statements ask respondent to rate their fear in a particular situation. The questionnaire does not ask if a particular behavior is appropriate and or common in a given context. Instead, the PRCF asks participants to report fear.

Translation of the PRCF into Japanese. The PRCF served as the primary measure in this research. As such, the need for an accurate translation, one that faithfully conveyed the concepts of the original PRCF, yet was understandable and grammatically accurate, was essential to the success of this study. Newmark (1985) called this goal the Equivalent Effect (p. 48). In order to meet the goal of equivalency, a process consisting of four steps was implemented. The process was: (1) develop a translation team and translate questionnaire; (2) back translate

the questionnaire for equivalency; (3) test and revise the questionnaire, and (4) perform a final accuracy check before typing. First, an explanation of the translation team.

Larson (1984) noted that the ultimate goal of translating is to "ensure accuracy, clearness, and naturalness" (p. 49). Larson (1984) further noted that the "results [of a translation] will be better if there are others available for evaluation and consultation" (p. 471). As such, a team approach to translation was indicated. The translation team was composed of a bilingual Japanese (lead translator) with a background in psychology, and an American fluent in Japanese (second translator) who was familiar with the concepts and work on communication apprehension.

The second translator (American fluent in Japanese) began by explaining the concepts of communication avoidance and communication apprehension to the lead translator (bilingual Japanese), who was then allowed to read the questionnaire several times and ask questions about the content. The lead translator then translated the questionnaire. The second translator assisted the lead translator in correcting the initial draft, insuring the key concepts were left intact. At this point, a back translator was used to check the translation.

The general translatability of the concepts was confirmed by the back translation; no major meaning differences were found. After the back translation was completed, the use of testers (a

focus group) was employed to check comprehension of the questionnaire (Larson, 1984, p. 492), and to affirm that the translation was "accurate, clear and natural" (Larson, 1984, p. 485). The focus group for this project consisted of Japanese upperclassmen at the university where the lead author is employed.

The focus group was first told to read and fill out the Japanese PRCF, comment if the questionnaire was understandable, and report if any of the questions were difficult or impossible to understand. At this point, they were shown only the Japanese version of the PRCF, not the original English version. One area that was noted by the focus group was the meaning of the "?." The focus group thought that even though the translation was accurate, the full range of meanings covered by the use of the "?" should be explained verbally to the students before taking the test (see description of instructions to teachers in Procedures section).

Another area that was said to be harder to understand than other areas was question number 10. The translation was done in active tense but should have been done in passive tense. This was corrected during the rewrite.

There were also several minor grammatical points (relationals, conjunctions, kanji (pictographic characters) and hiragana syllabary usage) mentioned. All suggestions were noted and corrected on the final version of the questionnaire. Next,

the focus group was given the original English PRCF, and asked to read it thoroughly. They were then asked to compare the two for accuracy, clarity, and naturalness in Japanese (including appropriate vocabulary, grammar and usage). From this exercise and the ensuing conversation among the focus group, several points were reported.

The first point concerned question three. The original stated "I like standing up and talking...," and the corresponding translation was "... tatte hitobito to hanasu o..." The focus group recommended adding to the translation the phrase "Hito mae de," which means "in front of people." This correction helped clarify the situation the question was suggesting, who was standing, and also helped the question flow more smoothly.

The second point involved item four. The original question read, "I like to talk when the whole class listens." The word originally chosen for the word listens was choshu, but the focus group thought that the word might be incomprehensible for the target audience, i.e., elementary school students, so a simpler form of listen, kiite iru, was chosen (Catford, 1965, p. 91).

The third point noted was that questions nine and twelve were worded identically in Japanese. Although the "central concept" (Larson, 1984, p. 48) is the same in the English PRCA, the wording is different. In Japanese, both questions nine and twelve used the phrase "shotaimen no hito" for "new people" (question nine), and "people I haven't met before" (question

twelve). Therefore, the Japanese translation for question twelve was changed to "ima made atta koto ga nai hito," which literally means "people I haven't met before."

After the corrections recommended by the focus group were completed, the questionnaire was given to a third party (Japanese bilingual), who both performed a back translation and checked for accuracy in Japanese. After a conference between the second translator and the final back translator, there was agreement that the questionnaire was both accurate in Japanese, and that the translation was a functional equivalent (Catford, 1965, p. 27; Newmark, 1988, p. 83). The questionnaire was then retyped, checked for accuracy, and copied.

Evaluation of the PRCF. Reliability of the PRCF for the entire sample, using Cronbach's alpha, was .81. Cronbach's alpha was also used to calculate reliabilities for the PRCF by level: (1) kindergarten to third grade, .75; (2) fourth to sixth, .83; (3) seventh to ninth grade, .82; (4) tenth to twelfth grade, .85.

A principle components analysis with varimax rotation of the PRCF revealed that the measurement instrument was not unidimensional as was originally found by McCroskey et al. (1981). Instead, the analysis revealed that the PRCF was multidimensional, consisting of three subdimensions (see Table 2). The first factor consisted of statements related to classroom communication fear (CCF), the second factor was made up of statements regarding general communication fear (GCF), and the

third factor consisted of statements related to communication fear with strangers (SCF). These three factors explained approximately 51 percent of the variance in PRCF scores. Cronbach's alpha was used to assess the reliability of each of the three subdimensions. Reliabilities of the subdimensions were .75 for CCA, .64 for GCA, and .71 for SCA.

The following procedure was used to generate a score for each of the three dimensions ("s1" refers to statement 1 of the PRCF):

(1) Seven statements (s1, s5, s7, s10, s11, s13, s14) were recoded to account for the negative/positive wording differences.

(2) The following formulas were used to generate scores:

CCF = s2 + s3 + s4 + s6 + s8

GCF = s5 + s7 + s10 + s11 + s13

SCF = s1 + s9 + s12 + 6

The formula for SCF (stranger communication fear) adds six to the three statements in order to maintain numerical consistency among the three subdimensions. Each of the three subdimensions has a theoretical midpoint of 15, which indicates that subjects are neutral or undecided about their perceptions of communication fear.

Once each subdimension was calculated, a correlation matrix was generated to examine the strength of the associations between the PRCF and its three subdimensions, as well as the associations between the subdimensions (see Table 3).

Insert Table 3 about here

In addition, a shared variance matrix (matrix of r squared) was generated to look at the amount of explained variance. Each of the subdimensions was highly correlated to the total score (minimum correlation of .75). However, the correlation matrix shows that the subdimensions were only moderately correlated (maximum correlation of .48). Furthermore, the amount of shared variance between any two of the subdimensions was small (maximum of 23.3% and minimum of 10.7%).

In summary, the three subdimensions (CCF, GCF, SCF) were included as dependent variables for the following three reasons: (1) a principle components analysis indicated the three dimensions explained a significant percent of the variance in PRCF scores, (2) reliability estimates of the three subdimensions were relatively high, and (3) shared variance and correlations between the subdimensions were relatively low.

Procedures

The PRCF was distributed by teachers at each of the thirteen grade levels (k-12). Elementary school teachers administered the questionnaire orally; At the kindergarten level, the teacher surveyed students two at a time. All teachers who participated in this study received the following set of directions (an English translation appears below):

TO THE TEACHER:

Thank you for taking time out of your busy schedule to participate in this survey. The purpose of this research is to measure communication apprehension and to further develop methods to deal with this phenomenon in the classroom. Although the goal of this questionnaire is to measure communication apprehension, please do not mention this to the students.

Please read the explanation to the students [from the questionnaire]. *The response "?" includes being unsure, both yes and no, or a neutral stance. *Please do not give students hints as to specific communication situations or guide their answers in any way, but please offer to clarify or explain words or phrases that they have trouble understanding.

RESULTS

A series of Analysis of Variance (ANOVA) tests were conducted to examine the differences between genders, grades, and levels. Because of the large number of tests, the level of type I error was set at a more conservative level (alpha=.01) than conventional standards. The results of the ANOVAs are summarized as follows:

(1) The means for males and females did not significantly differ for the PRCF or any of its subdimensions: PRCF (F [1,1289] = 2.07, p = .15), CCF (F [1,1350] = 5.22, p = .02), GCF (F [1,1358] = 1.85, p = .17), SCF (F [1,1389] = .48, p = .49).

(2) All two-way interactions between gender and level were not statistically significant: PRCF (F [3,1289] = .91, p = .43), CCF (F [3,1350] = 1.15, p = .33), GCF (F [3,1358] = 1.15, p = .33), SCF (F [3,1389] = 2.58, p = .05).

(3) The means for Level were significantly different for the PRCF and all three subdimensions: PRCF (F [3,1289] = 22.62, p < .001), CCF (F [3,1350] = 78.04, p < .001), GCF (F [3,1358] = 20.03, p < .001), SCF (F [3,1389] = 5.68, p = .001).

(4) The means for Grade were significantly different for the PRCF and all three subdimensions: PRCF (F [12,1271] = 11.92, p < .001), CCF (F [12,1332] = 30.27, p < .001), GCF (F [12,1340] = 7.65, p < .001), SCF (F [12,1371] = 9.17, p < .001).

To isolate significant differences among means, a series of Scheffe tests were conducted. Specifically, the variable Level was selected and multiple comparisons were run on the PRCF and all three of the subdimensions. The following patterns of significance were discovered:

(1) The PRCF means of students in both level 1 (early elementary) and level two (late elementary) were

significantly lower than the means on the PRCF of both middle and high school students (see Table 4).

Insert Table 4 about here

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(2) The Classroom Communication Fear (CCF) means of students in both level 1 (early elementary) and level two (late elementary) were significantly lower than the means on the CCF of both middle and high school students. In addition, the CCF mean for early elementary students was significantly less than the CCF mean for late elementary students (see Table 4).

(3) The General Communication Fear (GCF) mean of late elementary students (grades 4-6) was significantly lower than the GCF means of all other levels (K-3, 7-9, 10-12) (see Table 4).

(4) The mean of Communication Fear with Strangers (SCF) for early elementary students was significantly smaller than the SCF means for both middle and high schools students (see Table 4).

To address research question number 2, a tentative comparison was made between the level of communication fear in Japanese students and the level of communication fear in American students. A study conducted by McCroskey et al. (1981) provided data on the communication fear of 5,795 American students. Table 5 shows the means of Japanese and American students by level.

The standard deviations shown in Table 5 correspond to Japanese students (standard deviations for American students were not reported in the McCroskey et al. (1981) study).

Insert Table 5 about here

Table 5 indicates that Japanese and American students have relatively similar scores on the PRCF. For three of the four levels (K-3, 7-9, 10-12), Japanese students report a slightly higher level of communication fear; however, the difference is very small (1 point difference on a scale that ranges from 14 to 70). In addition, Japanese students in the higher elementary grades (4-6) reported lower communication fear than American students in the same grades (see Table 5).

DISCUSSION

The purposes of this study were to examine levels of communication apprehension in Japanese elementary and secondary school students and to compare them to normative levels of apprehension in American children and adolescents. The Personal Report of Communication Fear (McCroskey et al., 1981) was administered to 1446 students from six elementary, junior, and high schools in Japan. The major findings are: (1) communication apprehension levels increase fairly steadily from kindergarten through the senior year in high school, particularly for the Classroom Communication Fear subscale of the PRCF; and (2) there

was virtually no difference between Japanese and American students in grades K-12 on the PRCF using the normative means established by McCroskey and his colleagues (1981).

Before discussing the first major result, a related finding that warrants discussion is that the PRCF, usually considered unidimensional (McCroskey et al., 1981), produced three factors in the present study: general communication fear (GCF), classroom communication fear (CCF), and apprehension about strangers (SCF). The three dimensions showed some differences. Future research needs to examine the dimensional structure of the PRCF and to study levels of classroom apprehension among elementary and secondary school students in the United States. Neer and Kircher (1989) have begun studying classroom apprehension, but normative levels of the problem have not been established, and the measure Neer (1987) developed requires further refinement (Neer & Kircher, 1989).

Because of the dimensional structure of the PRCF obtained in the present study, the authors were able to isolate the finding that the largest increases in apprehension among the Japanese subjects occurred on the classroom apprehension subscale. Scores for kindergartners averaged 7.8 whereas seniors in high school had a mean of 16.1. The increases in the fears of communicating with strangers subscale were not nearly as dramatic (from 11.2 to 14.8 from kindergarten to twelfth grade). This suggests the importance of the classroom environment, perhaps

especially for Japanese students, on the development of feelings about communication.

A second major result is that there is no significant difference in the PRCF scores of Japanese and American students in grades k-12 when the normative means established by McCroskey and colleagues (1981) are compared with those generated in the present study. This finding is surprising in light of the evidence accumulated in a number of studies which found significantly higher levels of CA among Japanese college students than among their American counterparts (Klopf, 1984; McCroskey et al., 1985b). Even Zimbardo's (1977) research found greater incidence of shyness among young adults in Japan. No published study has examined CA among children and adolescents in Japan. Given the size and representativeness of the sample used in the present study, it is reasonable to conclude that prior to college, Japanese children and teens do not experience higher levels of CA than Americans of the same age.

This conclusion raises the central question of why no difference exists in the elementary and secondary schools, yet at the college level Japanese respondents report higher CA. The answer may be tied to issues of measurement or sampling. It is conceivable that the Personal Report of Communication Apprehension (PRCA), used to measure CA in adults, and the Personal Report of Communication Fear (PRCF), appropriate for use with children, are not equivalent. Analysis of the items

illustrates that the PRCF focuses more heavily than the PRCA on apprehension about communicating in the classroom. In fact the PRCA has no items that explicitly address class discussion or talking to teachers. Thus, the differential results obtained may be a function of the measures used.

A second explanation is the samples employed in the various studies. As discussed earlier, when one samples from among Japanese college students, those selected are not representative of the population at large because of the structure of the system of education in that country. Those in colleges and universities, especially in higher level institutions, represent only a segment of the population in Japan. This is not true, of course, when samples are obtained in the primary grades through high school.

Why that small segment of the population represented by college students in Japan obtains higher communication apprehension and shyness scores than American college students cannot be answered with certainty. Perhaps the pressures due to extreme competition resulting from the fact that only the top students go on to the best colleges and universities produces increased levels of CA. One study that examined psychosomatic factors associated with the onset of bronchial asthma in Japanese children and adolescents concluded: "The unique social environment under which Japanese youth are placed, namely, extremely severe competition for entering good high schools and

universities seems to play a significant role in the dynamism of the emergence of these disorders [tension headaches, hyperventilation syndrome, anorexia nervosa, etc.]" (Ikemi, Ago, Nakagawa, Mori, Takahashi, Suematsu, Sugita, & Matsubara, 1974). If such pressures can produce psychosomatic illnesses, they can undoubtedly cause increased shyness or communication apprehension. Additional research is required to understand the greater incidence in CA among students of higher education in Japan. Moreover, as Kang and Pearce (1983) caution, it is important not to assume that the interpretation of a concept or experience is the same across cultures. Thus, research also should examine what it means to Japanese students to be apprehensive about communication.

A second finding of the present study which lends some credence to the speculations just offered is that ninth grade students show a significant upward shift in PRCF scores. This is the year in which Japanese youth take the entrance examination to determine which high school they will attend and whether or not they will be among the few who attend college. Perhaps the fears and anxieties surrounding such all-important examinations are projected onto other aspects of a student's life such as his or her feelings about communication. McCroskey and Beatty (1986) report a positive relationship between communication apprehension and general anxiety, although the two are not isomorphic.

In addition to the suggestions offered throughout this discussion, future research on communication apprehension among Japanese students should examine the situational characteristics of the classroom that promote fear of speaking. What teacher, peer, or other variables contribute to the substantial increase in apprehension levels as children progress from kindergarten through high school? Similar research needs to be conducted on American samples, continuing the line of research begun by Neer (1987).

NOTE

[1]Narashino is a small city of 150,000 people, located on the east side of Tokyo bay, approximately fifteen miles east of Tokyo. The part of Narashino facing Tokyo Bay was built on reclaimed land; approximately one-third of Narashino was created by various reclamation projects. The remaining two-thirds of the area that is now called Narashino was established shortly after the Meiji restoration, and the name Narashino was bestowed on the region by Emperor Meiji himself. Thus part of Narashino has a long history, and part of it is relatively new.

The east and south central parts of Narashino (most of which can be accessed by the original Tokaido trail) have a mixture of old and new homes, and is relatively quiet. Compared with other parts of Narashino, access to Tokyo is more difficult. The socioeconomic level is also mixed, with a combination of white and blue collar workers.

With the expansion of the Japanese economy in the 1960's, Narashino grew rapidly because of its relative closeness to Tokyo, and because many young families who worked in Tokyo decided to settle in Narashino. Some of the newer parts of Narashino boast homes that, although are rather small and comparatively cramped (by Western standards), often exceed $1 million in price.

Overall, Narashino is socially and economically above the Japanese average, with Hitachi and JVC research centers, as well

as Honda Motor Company's main port located there. Narashino is one of the few cities in Japan that does not allow heavy industry factories within city limits, and boasts of its priorities being education and culture. Narashino has 16 public kindergartens, 16 public elementary schools, 7 public junior high schools, and one public high school. The area is also home to numerous private high schools and colleges.

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Table 1

Means for PRCF and Subdimensions by Grade

Grade	N	PRCF	CCF	GCF	SCF
Kindergarten	45	26.5	7.8	12.1	11.2
1	39	30.3	9.3	13.3	12.9
2	85	35.9	13.1	12.7	14.4
3	109	34.1	12.7	11.2	14.3
4	129	32.7	14.0	9.8	13.0
5	127	36.2	15.0	10.3	14.9
6	131	33.8	14.1	10.1	13.9
7	120	35.7	14.7	11.0	14.0
8	139	36.2	15.4	10.8	14.3
9	130	39.6	16.3	12.4	14.7
10	82	37.5	15.7	11.2	14.3
11	84	37.5	15.9	11.2	14.5
12	78	38.5	16.1	11.5	14.8

PRCF (Personal report of Communication Fear) scores range from 14 to 70

GCF (General Communication Fear) scores range from 5 to 25

CCF (Classroom Communication Fear) scores range from 5 to 25

SCF (Stranger Communication Fear) scores range from 9 to 21

Table 2

Principle Components Analysis of PRCF

Statement on PRCF	Factor Loadings*		
	1	2	3
1. Talking with someone new scares me.		.42	.67
2. I look forward to talking in class.	.53		
3. I like standing up and talking to a group of people.	.68		
4. I like to talk when the whole class listens.	.66		
5. Standing up to talk in front of other people scares me.		.60	
6. I like talking to teachers.	.69		
7. I am scared to talk to people.		.66	
8. I like it when it is my turn to talk in class.	.78		
9. I like to talk to new people.	.41		.72
10. When someone asks me a question, it scares me.		.55	

(table continues)

11.	There are a lot of people I am scared to talk to.	.66	
12.	I like to talk to people I haven't met before.		.72
13.	I like it when I don't have to talk.	.56	
14.	Talking to teachers scares me.	.51	

*Factor loadings below .3 were not included in this table.

Table 3

Correlations Matrix and Shared Variance Matrix on PRCF and Three Subdimensions

	Correlations Matrix			
	PRCF	CCF	GCF	SCF
PRCF	1.000	0.807	0.750	0.752
CCF	0.806	1.000	0.327	0.483
GCF	0.750	0.327	1.000	0.392
SCF	0.752	0.483	0.392	1.000
	Shared Variance			
	PRCF	CCF	GCF	SCF
PRCF	100.0%	65.1%	56.3%	56.6%
CCF	65.0%	100.0%	10.7%	23.3%
GCF	56.3%	10.7%	100.0%	15.4%
SCF	56.6%	23.3%	15.4%	100.0%

PRCF (Personal report of Communication Fear) scores range from 14 to 70

GCF (General Communication Fear) scores range from 5 to 25

CCF (Classroom Communication Fear) scores range from 5 to 25

SCF (Stranger Communication Fear) scores range from 9 to 21

Table 4

Mean PRCF and Subdimensions by Grade-Level

		Scale and Subdimensions			
Grade Level	N	PRCF	GCA	CCA	SCF
K through 3	309	32.87	12.11	11.57	13.69
4 through 6	417	34.21	10.07	14.37	13.94
7 through 9	420	37.22	11.38	15.49	14.32
10 through 12	252	37.83	11.32	15.92	14.55

PRCF (Personal report of Communication Fear) scores range from 14 to 70

GCF (General Communication Fear) scores range from 5 to 25

CCF (Classroom Communication Fear) scores range from 5 to 25

SCF (Stranger Communication Fear) scores range from 9 to 21

Table 5

Mean PRCF for American and Japanese Students by Level

Grade Level	American	Japanese	SD*
K through 3	32.5	32.87	9.12
4 through 6	36.5	34.21	9.08
7 through 9	36.5	37.22	8.14
10 through 12	36.4	37.83	7.72

PRCF (Personal report of Communication Fear) scores range from 14 to 70

*SD Standard deviation for Japanese sample.